UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Gundula Czyzewski et al.
Application Number:	10/584,817
Filing Date:	06/27/2006
Group Art Unit:	1796
Examiner:	Amina S. Khan
Title:	METHOD FOR WASHING LAUNDRY IN A PROCESS-CONTROLLED HOUSEHOLD WASHING MACHINE

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Pursuant to 37 CFR 1.192, Appellants hereby file an appeal brief in the above-identified application. This Appeal Brief is accompanied by the requisite fee set forth in 37 CFR 1.17(f).

Table of Contents

(1) REAL PARTY IN INTEREST

The real party in interest is BSH Bosch und Siemens Hausgeräte GmbH.

(2) RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) STATUS OF CLAIMS

Claims 1 - 5 are cancelled. Claims 6 - 14 are pending in the present application and have been finally rejected. The final rejections of claims 6 - 14 are being appealed. Claims 6 and 11 are independent.

(4) STATUS OF AMENDMENTS

In response to the Final Rejection dated June 18, 2010, an Amendment was received in the US Patent Office on September 10, 2010. An Advisory Action mailed September 24, 2010 indicated that the request for reconsideration set forth in the Amendment received in the US Patent Office on September 10, 2010 had been considered but did not place the application in condition for allowance. A Notice of Appeal was received in the US Patent Office on September 28, 2010. No further amendments have been filed.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 6

One aspect of the present invention, as defined by, for example, independent claim 6, relates to a method for washing laundry in a process-controlled household washing machine comprising a wash liquid container for receiving laundry and wash liquid intended for washing the laundry. More specifically, as recited in independent claim 6, the method for washing laundry is for use in a process-controlled household washing machine comprising a wash liquid container for receiving laundry and wash liquid intended for washing the laundry wherein a heating device and a temperature sensor are attached (Page 1, lines 2 – 6, of the present application). In accordance with the method recited in independent claim 6, water for washing is poured into the wash liquid container of the process-controlled household washing machine during a filling phase. For example, the water for washing is in the form of unheated water from a domestic water supply (Page 5, lines 15 – 17) and this filling phase is identified as the filling phase F seen in the two respective temperature profiles of a washing solution shown in Figures 1 and 2. Figure 1 shows a respective temperature profile of a washing solution in which the intake water received during the filling phase F has a "standard value" inlet temperature at the end of this filling phase F while Figure 2 shows a respective temperature profiles of a washing solution in which the intake water received during the filling phase F has an inlet temperature below the "standard value."

In further conformance with the method recited in independent claim 6, the temperature sensor delivers signals for the respective temperature of the water or the wash liquid to a process control system during a washing phase and, as well, the process control system derives commands for controlling the heating device for heating the wash liquid from the temperature signals (Page 1, lines 7 – 11). In connection with the execution of the inventive method for washing laundry recited in claim 6 of the present invention in a process-controlled household washing machine, the process control system controls various components of the household washing machine to perform a typical washing process (Page 1, lines 11 – 14) wherein such a typical

washing process runs at a temperature of the water or the wash liquid at the level of a standard value with a heating phase which begins with switching on the heating device, a mechanics phase during which mechanics are introduced as a result of rotations of the wash liquid container, and a post-wash phase without adding further heat energy. The typical washing process lasts for a defined constant time from the beginning of switching on the heating device until the end of the post-wash phase (Page 1, lines 14 – 15).

Figure 1 shows, in graphical format, one possible scenario in which this typical washing process may proceed. In the scenario illustrated in Figure 1, the standard value S of the temperature of the incoming water is assumed to be 15° C for this scenario (Page 5, lines 17 - 19, of the present application). Now, in connection with the completion of the filling phase F at the time t_{OS}, the typical washing process begins and this includes, as recited in claim 6, a heating phase which begins with switching on the heating device and this can be seen in Figure 1 wherein the (now complete) volume of filling water is raised from its temperature at the time t_{OS} of 15° C to a higher temperature value of 60° C (Page 5, lines 20 – 24 and shown in Figure 1 as the temperature reached at the time t_{IS}). The heating device is then switched off (Page 5, lines 24 – 25) and the typical washing process shown in Figure 1 then involves performing a mechanics phase during which mechanics are introduced as a result of rotations of the wash liquid container (Page 5, lines 2- 27,, and shown in Figure 1 as the washing phase W). The post-wash phase without adding further heat energy (Page 5, lines 38 – 31) follows the mechanics phase and as shown in Figure 1, the washing solution has cooled down to a value below a "target" temperature (e.g., 50° C) (Page 5, lines 26 – 27 at the end of this post-wash "cooling" phase. Having completed the post-wash phase, the typical washing process has reached its end, indicated in Figure 1 as an end time t_{ES}. After the end of the typical washing process at the end time t_{ES}, a rinsing phase can be performed in which a further supply of unheated water is introduced into the wash container (Page 5, lines 29 – 31, and shown in Figure 1 as the rinsing phase R).

In accordance with the inventive method for washing laundry recited in claim 6 of the present invention, the temperature of the water or the wash liquid is determined at

or after the end of the filling with water – e.g., as discussed with respect to the scenario shown in graphical format in Figure 1, the temperature of the water or wash liquid is determined at the completion of the filling phase F at the time t_{OS}. It may turn out, however, that, in another possible scenario of a washing process, the temperature of the incoming water (supplied during the filling phase F) is below the standard value (Page 6, lines 20 -21). Figure 2 illustrates in graphical format such a possible scenario, wherein it can be seen in Figure 2 that the temperature of the incoming water (supplied during the filling phase F) is below the standard value (the standard value assumed to be S=15° C). The inventive method for washing laundry recited in claim 6 of the present invention now provides that certain prescribed steps be performed with regard to this type of event – that is, as recited in claim 6, an event of a determined temperature of less than a standard value for the amount of water which has freshly run into the wash liquid container before the beginning of the washing process. Specifically, the steps prescribed by the method recited in claim 6 includes the step of switching on the heating device and, further, the beginning of the washing process is delayed by a defined time interval ($t_{OK} - t_{0S}$) (Page 6, lines 15 – 21). Figure 2 shows that the temperature of this freshly run in water (i.e., the incoming or filling water) is, as a consequence of the turning on of the heater, raised from its temperature at the completion of the filling phase F at the time t_{OS} – a temperature below the standard value S=15° C - to the temperature of the standard value S=15° C, this standard value temperature being reached at the time t_{OK}. The time interval delay ($t_{OK} - t_{0S}$) shown in Figure 2 has thus had a duration marked by the increase of the temperature of the incoming water from its lower temperature at the time t_{OS} to the higher temperature equaling the standard value S=15° C at the time t_{OK}.

Claim 6 recites that, in accordance with the inventive method, the beginning of the washing process is delayed by this defined time interval ($t_{OK} - t_{0S}$) but from there on lasts the same time as the typical washing process and, during the time interval delay ($t_{OK} - t_{0S}$), the wash liquid container is not subjected to mechanics phase during which mechanics are introduced as a result of rotations of the wash liquid container (Page 6, lines 22 – 26). As seen in Figure 2, at the end of the delay phase D at the time t_{OK}, the washing process begins and from there lasts the same time as the typical washing

process. Thus, in a manner similar to that described with respect to the scenario in Figure 1, the washing process commences, which includes a heating phase which begins with switching on the heating device and this can be seen in Figure 1 wherein the filling water is raised from its temperature at the time t_{0k} of 15° C to a higher temperature value of 60° C at the time t_{IK}. The heating device is then switched off and the washing process shown in Figure 2 then involves performing a mechanics phase during which mechanics are introduced as a result of rotations of the wash liquid container (the washing phase W), followed by the post-wash phase during which the washing solution cools down to a value below a "target" temperature at the end of this post-wash "cooling" phase (reached at time t_{EK}). It can thus be seen that the washing process of the scenario shown in graphical format in Figure 2 has a pre-determined time interval delay $t_{EK} - t_{0K}$ that is the same length as the pre-determined time interval $t_{ES} - t_{0S}$ as the scenario shown in graphical format in Figure .

. The method of the present invention as exemplarily recited in claim 6 provides the advantage that uniformly good washing results can be obtained since one can then always operate the washing phase for the same desired time duration of the so-called Sinnersch cycle (which prescribes a targeted sum for the factors of temperature, time, mechanics, and chemistry).

Independent Claim 11

A further aspect of the present invention as defined by, for example, independent claim 11, is directed to a method for washing laundry in a washing machine comprising a process control system for controlling operation of the washing machine, a wash liquid container for receiving laundry and water, a heating device for heating the water within the wash liquid container, and a temperature sensor for detecting the temperature of the water (Page 1, lines 2 – 6, of the present application). The method recited in independent claim 11 includes the acts of providing wash liquid to the wash liquid container during a filling phase of a given laundry handling cycle (Page 5, lines 17 - 19, of the present application), detecting an initial temperature of the water with the temperature sensor (Page 3, lines 5 - 6), and activating the heating device to heat the

water during a heating phase (Page 1, lines 11 – 14). The method recited in claim 11 further includes the act of performing a delay phase if the temperature of the water is below a pre-determined standard value, the delay phase continuing until the temperature of the water reaches the standard value and, during the delay phase, the wash liquid container is not subjected to a mechanics treatment during which mechanics are introduced as a result of rotations of the wash liquid container (Page 6, lines 15 – 21, and Figure 2). The inventive method recited in claim 11 further includes performing a washing phase and continuing the wash phase for a pre-determined period of time, the washing phase including subjecting laundry in the wash liquid container to a mechanics treatment during which mechanics are introduced as a result of rotations of the wash liquid container, the washing phase not commencing until the completion of the step of detecting an initial temperature of the water, the step of activating the heating device, and the step of performing a delay phase, if such a delay phase is to be performed and turning off the heating device when the temperature of the water reaches a pre-determined washing temperature (Page 6, lines 22 – 26). .

The Reference

Schaverien US Patent No. 3,456,462 discloses a method for washing clothes in a metal sink 1 having a cascade inlet 14, an electric water heater 10, an electric motor 5, and an agitator 3 in the form of a wheel provided with radial spokes 4 which act as blades to agitate the water in the metal sink 1 (Col. 2, lines 31 – 70, and Figures 1 and 2 of Schaverien '462). The method for washing clothes in the metal sink 1 comprises opening the cascade inlet 14 such that water fills into the metal sink 1, closing the hot cascade inlet 14 when water filled into the metal sink 1 has reached a pre-set level, and turning on the electric water heater 10 to bring water in the metal sink 1 up to a selected desired temperature such as, e.g., "very hot," "hot", or "warm" (Col. 3, lines 66 – 74) The method for washing clothes in the metal sink 1 further comprises the next following steps of injecting detergent (Col. 3, line 75), starting the electric motor 5 and the agitator 3 for five minutes (Col. 4, line 1), and then stopping the electric motor 5 and opening an outlet valve long enough to empty the metal sink 1(Col. 4, lines 2 – 3). Thereafter, an

outlet valve is closed (Col. 4, line 41) and the cascade inlet valve 14 is opened to fill the sink 1 for rinse (Col. 4, line 5). One or more repetitions of the steps of emptying the sink 1, closing the outlet valve (Col. 4, line 1), and filling the sink 1 for a rinse are then performed (Col. 4, lines 5 - 7).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

a. Whether claims 6, 7, and 9 - 13 are unpatentable under 35 U.S.C. §102(b) as being anticipated by Schaverien US Patent No. 3,456,462?

b. Whether claims 8 and 14 are unpatentable under 35 U.S.C. §103(a) over Schaverien US Patent No. 3,456,462?

(7) ARGUMENT

A) The Rejection of Claims 6, 7, and 9 - 13 Under 35 U.S.C. §102(b) As Being Anticipated By Schaverien US Patent No. 3,456,462 Is Not Proper

In the Final Rejection dated June 18, 2010, the Examiner explains the rejection of claims 6, 7, and 9 - 13 under 35 U.S.C. §102(b) as being anticipated by Schaverien US Patent No. 3,456,462 as follows. Schaverien, according to the Examiner, "teaches a method of washing clothes in a domestic washing machine comprising adding water to the apparatus, activating water heater to raise water temperature to the desired temperature, starting motor and agitator for 5 minutes, stopping motor and emptying fluid, adding cold water for rinse, activating the motor and agitator for 5 minutes and emptying the apparatus (column 3, line 65 to column 4, line 15; claim 1 of Schaverien)." The Examiner additionally asserts that "Schaverien further teaches that heater for the water is activated when the water filling is done wherein a thermostat monitors the temperature and turns off the heater when the desired temperature has been reached (column 3, lines 20-40 [of Schaverien '462])." Moreover, the Examiner notes, in the Advisory Action mailed September 24, 2010, that Appellants have argued that "claim 6 of the present invention provides for both a heating phase during a typical washing

process as well as an additional heating input during a delay period before the beginning of the washing process and that this feature is not taught by Schaverien." Nonetheless, according to the Examiner, "claims 6 and 11 [of the present application] only require a single heating step during the heating phase, no heat requirement is claimed during the mechanics phase and the post wash phase is defined as without adding further energy." According to the Examiner, "[s]ince no heating requirement is specifically recited during the mechanics phase, the examiner argues that the teachings of Schaverien are sufficient to anticipate the material limitations of claims 6, 7, and 9 – 13."

Appellants respectfully submit that Schaverien '462 does not anticipate the laundry washing method of the present application as recited in claims 6, 7, and 9 - 13 of the present application. As recited, for example, in claim 6 of the present application, the inventive method for washing laundry is for use in a process-controlled household washing machine wherein a "typical wash process" is specifically configured to achieve the benefits of the so-called Sinnersch cycle, which permits uniformly good washing results to be obtained if the washing phase is always operated for the same desired time duration. Thus, this "typical wash process" as set forth in claim 6 of the present application is operated at a uniform desired time duration (consistent with the Sinnersch cycle) in that the "heating phase", the "mechanics phase", and the "post-wash phase" "lasts for a defined constant time from the beginning of switching on the heating device until the end of the post-wash phase."

As noted, claim 6 of the present application recites that the typical washing process runs at a temperature of the water or the wash liquid at the level of a "standard value." The inventive method for washing laundry additionally provides an approach by which this temperature of the water or the wash liquid at the level of a "standard value" is achieved in the event of a determined temperature of less than a standard value for the amount of water which has freshly run into the wash liquid container before the beginning of the washing process. Namely, as set forth in claim 6, in such an event, the heating device is switched on and, further, the beginning of the washing process is delayed by a defined time interval.

Turning now to the clothes washing method disclosed in Schaverien '462, it can be seen that the water that has been filled into the metal sink 1 is brought up to a selected desired temperature, such as, e.g., "very hot," "hot", or "warm", before several other steps commence - i.e., before the performance of the remaining steps of the clothes washing method of Schaverien '462, these remaining steps being the injection of detergent, the operation of the agitator 3, and the draining of the metal sink 1 in advance of a rinse step. However, the clothes washing method disclosed in Schaverien '462 does not comprise, and Schaverien '462 does not hint at the desirability of, performing a washing process to achieve the benefits of a cycle having a targeted sum for the factors of temperature, time, mechanics, and chemistry, and which comprises, as the situation may require, both a heating input to bring the filling water up to a desired start temperature and another heating input during the fixed time length cycle. As an example, Schaverien '462 does not teach or disclose providing any thermal input into the above-noted remaining steps of the injection of detergent, the operation of the agitator 3, and the draining of the metal sink 1 in advance of a rinse step that could be considered the same or equivalent as the "heating phase" of the "typical wash process" set forth in claim 6 of the present application. As exemplarily disclosed in the present application, it may be selected that the standard value S of the temperature of the incoming water is to be 15° C (see Page 5, lines 17 - 19, of the present application). If, then, for example, considerably cooler water (e.g., only 6° C) flows in at the beginning of a washing program (see Page 6, lines 20 -21, of the present application), a delay phase D is performed during which the washing solution is heated until the temperature of the incoming water now reaches the standard value S of 15° C. At the end of the delay phase D, the washing process W begins and, as seen in Figure 2 of the present application, a thermal input is provided during this washing process W so as to raise the temperature of the washing solution from the standard value S of 15° C (at the time of the end of the delay phase D - i.e., shortly after the time t_{0K}) to a higher temperature value of 60° C (reached at time t_{1K}). In contrast, in the clothes washing method disclosed in Schaverien '462, no thermal input is provided during any of the steps of the injection of detergent, the operation of the agitator 3, and the draining of the metal sink 1 in advance of a rinse step, and Schaverien '462 does not show any recognition of the

desirability of providing such a thermal input during a washing process to achieve the benefits of a fixed time length cycle having a targeted sum for the factors of temperature, time, mechanics, and chemistry.

Thus, claim 6 of the present application provides for both a heating phase during a typical washing process ("...wherein a typical washing process runs ...with a heating phase...") and, as needed, an additional heating input ("that at a determined temperature of less than a standard value for the amount of water which has freshly run into the wash liquid container before the beginning of the washing process the heating device is switched on") during a delay period before the beginning of the washing process. In contrast, Schaverien '462 merely discloses a single heating input (this occurs, as disclosed in Column 3, lines 72 - 75 of Schaverien '462, before the commencement of the remaining steps of the injection of detergent, the operation of the agitator 3, and the draining of the metal sink 1 in advance of a rinse step) and Schaverien '462 does not hint at, nor identify any requirement in its washing process, for any other heating inputs. In view of the fact that claim 6 of the present application clearly comprises limitations drawn to two distinct heating phases, while Schaverien '462 expressly discloses a single heating phase, it is submitted that claim 6 of the present application patentably defines over Schaverien '462.

Thus, claims 6, 7, and 9 - 13 are not anticipated by Schaverien '462 and it is therefore respectfully requested that the rejection of claims 6, 7, and 9 - 13 be withdrawn.

B. The Rejection of Claims 8 And 14 Under 35 U.S.C. §103(a) As Unpatentable Over Schaverien US Patent No. 3,456,462 Is Not Proper

Claim 8, which depends ultimately from claim 6, and claim 14, which depends ultimately from claim 11, each recite the feature that the standard value (of the incoming water) lies in the range of 10^{o}C to 15^{o}C. With respect to the rejection of claims 8 and 14 under 35 U.S.C. §103(a) as being unpatentable over Schaverien US Patent No. 3,456,462, the Examiner notes that Schaverien '462 is silent as to the standard temperature of the water but asserts that it would have been obvious to one of ordinary

skill in the art at the time the invention was made that the temperature of cold or tap water would fall in the range of 10°C to 15°C.

Appellants respectfully submit that, even if it would have been obvious to one of ordinary skill in the art at the time the invention was made that the temperature of cold or tap water would fall in the range of 10°C to 15°C, Schaverien '462 does not render obvious the subject matter of claims 8 and 14 under 35 U.S.C. §103(a). As noted, the clothes washing method disclosed in Schaverien '462 does not comprise, and Schaverien '462 does not hint at the desirability of, performing a washing process to achieve the benefits of a laundry cycle which prescribes a targeted sum for the factors of temperature, time, mechanics, and chemistry. Thus, even if one of ordinary skill in the art at the time the invention was made were taught that the temperature of cold or tap water should fall in the range of 10°C to 15°C, Schaverien '462 provides no guidance with respect to performing a washing process as recited in independent claims 6 and 11 from which claims 8 and 14 respectively ultimately depend. Thus, claims 8 and 14 are not rendered obvious by Schaverien '462 and it is therefore respectfully requested that the rejection of claims 8 and 14 be withdrawn.

(8) CONCLUSION

In view of the foregoing discussion, Appellants respectfully request reversal of the Examiner's rejection.

Respectfully submitted,

/James E. Howard/

James E. Howard
Registration No. 39,715
November 16, 2010

BSH Home Appliances Corporation
100 Bosch Blvd.
New Bern, NC 28562
Phone: 252-639-7644
Fax: 714-845-2807
james.howard@bshg.com

CLAIMS APPENDIX

1 - 5. (Canceled)

6. (Finally Rejected) A method for washing laundry in a process-controlled household washing machine comprising a wash liquid container for receiving laundry and wash liquid intended for washing the laundry, wherein a heating device and a temperature sensor are attached, wherein water for washing is poured into the wash liquid container during a filling phase and the temperature sensor delivers signals for the respective temperature of the water or the wash liquid to a process control system during a washing phase and said process control system derives commands for controlling the heating device for heating the wash liquid from the temperature signals and wherein a typical washing process runs at a temperature of the water or the wash liquid at the level of a standard value with a heating phase which begins with switching on the heating device, a mechanics phase during which mechanics are introduced as a result of rotations of the wash liquid container, and a post-wash phase without adding further heat energy, and lasts for a defined constant time from the beginning of switching on the heating device until the end of the post-wash phase, wherein:

the temperature of the water or the wash liquid is determined at or after the end of the filling with water;

that at a determined temperature of less than a standard value for the amount of water which has freshly run into the wash liquid container before the beginning of the washing process the heating device is switched on; and

that the beginning of the washing process is delayed by a defined time interval ($t_{OK} - t_{0S}$) but from there on lasts the same time as the typical washing process and, during the time interval delay ($t_{OK} - t_{0S}$), the wash liquid container is not subjected to mechanics phase during which mechanics are introduced as a result of rotations of the wash liquid container.

7. (Finally Rejected) The method according to claim 6, wherein the temperature is first determined during the filling with water or wash liquid and before or during switching off the heating device.

8. (Finally Rejected) The method according to claim 6, wherein the standard value lies in the range of 10°C to 15°C.

9. (Finally Rejected) The method according to claim 6, wherein the time interval ($t_{OK} - t_{0S}$) is defined by reaching the standard value.

10. (Finally Rejected) The method according to claim 6, wherein the time interval ($t_{OK} - t_{0S}$) has a pre-defined length.

11. (Finally Rejected) A method for washing laundry in a washing machine comprising a process control system for controlling operation of the washing machine, a wash liquid container for receiving laundry and water, a heating device for heating the water within the wash liquid container, and a temperature sensor for detecting the temperature of the water, the method comprising the acts of:

providing wash liquid to the wash liquid container during a filling phase of a given laundry handling cycle;

detecting an initial temperature of the water with the temperature sensor;

activating the heating device to heat the water during a heating phase;

performing a delay phase if the temperature of the water is below a pre-determined standard value, the delay phase continuing until the temperature of the water reaches the standard value and, during the delay phase, the wash liquid container is not subjected to a mechanics treatment during which mechanics are introduced as a result of rotations of the wash liquid container;

performing a washing phase and continuing the wash phase for a pre-determined period of time, the washing phase including subjecting laundry in the wash liquid container to a mechanics treatment during which mechanics are introduced as a result of rotations of the wash liquid container, the washing phase not commencing until the

completion of the step of detecting an initial temperature of the water, the step of activating the heating device, and the step of performing a delay phase, if such a delay phase is to be performed;

turning off the heating device when the temperature of the water reaches a pre-determined washing temperature.

12. (Finally Rejected) The method according to claim 11, wherein the duration of the washing phase has a pre-defined length.

13. (Finally Rejected) The method according to claim 12, wherein the duration of the delay phase is variable in response to the period of time required for the temperature of the water to reach the standard value.

14. (Finally Rejected) The method according to claim 11, wherein the standard value is between about 10°C to 15°C.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None